

KEYSTONE STEEL & WIRE
MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Address: 7000 S. Adams, Peoria, IL 61641
Telephone: (309) 697-7558 during normal business hours
(309) 697-7771 every evening
Product Name: Low Carbon Steel Products - All Grades

SECTION II - HAZARD COMMUNICATION INGREDIENTS

<u>Primary Metals</u>	<u>Gen. Chem. Formula</u>	<u>C.A.S. Number</u>	<u>% Wt.</u>
Iron	Fe	7439-89-6	> 99
Manganese	Mn	7439-96-5	< 1

Coatings

A thin coating of soluble oil or lime (<5% total weight of product) or zinc (<2.4% total weight of product) may be added to the surface as a corrosion inhibitor or preventative.

SECTION III - PHYSICAL DATA

Boiling Point (°F)	N/A	Percent volatile by volume	N/A
Vapor Pressure (MM Hg @ 20°C)	N/A	Evaporative rate (ethyl ether = 1)	N/A
Vapor Density (Air = 1)	N/A	PH information	N/A
Solubility in Water	N/A	Specific gravity (H ₂ O = 1)	Approx. 8

Appearance and odor: odorless solid with metallic lustre.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F)	N/A	Special fire fighting instructions	N/A
LEL/UEL	N/A	Unusual fire explosion hazards	N/A
Fire & Explosion Hazards	N/A	Flammability limits (%/vol.)	N/A

Product is non-combustible.

SECTION V - REACTIVITY DATA

Stability: Stable.

Hazardous Polymerization: Will not occur.

Comments: Metal fumes and certain noxious gases such as CO may be produced during welding or burning operations. Refer to Sections VI and VII for more information.

SECTION VI - HEALTH HAZARD INFORMATION

Primary Route(s) of Entry: Inhalation, skin contact.

Effects of Exposure: No toxic effects would be expected from its inert solid form. Prolonged, repeated exposure to fumes or dusts generated during heating, cutting, brazing or welding may cause the following adverse health effects:

Inhalation

Iron (Fe): Siderosis, no fibrosis

Manganese (Mn): Pneumonitis. CNS involvement, including irritability, difficulty in walking, speech disorders, compulsive behavior, masklike face and Parkinson-like syndrome.

Zinc (Zn): Inhalation of zinc dust or zinc oxide fumes can cause a flu-like illness called metallic fever.

Soluble Oil: Pulmonary effects.

Lime: May cause irritation.

Skin Contact

May cause irritation. Soluble oil may cause dermatitis.

Eye Contact

May cause irritation.

Ingestion

May cause irritation to mouth and throat.

Exposure Limits:

<u>Ingredient</u>	<u>OSHA PEL (Mg/M3)</u>	<u>ACGIH TLV (Mg/M3)</u>
Iron (Fe)	10 (as Fe ₂ O ₃ fume)	5 (as Fe ₂ O ₃ fume)
Manganese (Mn)	5	1.0 (as fume)
Zinc (Zn)	5 (fume)	5
Lime (CaO)	5	2

SECTION VII - EMERGENCY AND FIRST AID PROCEDURES

Inhalation: Move to fresh air. Seek medical attention if deemed necessary.

Skin contact: If irritation develops, remove contaminated clothing immediately and wash contaminated skin with soap or mild detergent and water for five minutes. Seek medical attention if deemed necessary.

SECTION VII - EMERGENCY AND FIRST AID PROCEDURES (Continued)

Eye Contact: Immediately wash eyes with large amounts of water for five minutes, occasionally lifting the upper and lower lids. Seek medical attention if deemed necessary.

Ingestion: Seek medical attention if deemed necessary.

SECTION VIII - SPILL, LEAK & DISPOSAL PROCEDURES

Action to take for spills (use appropriate safety equipment): N/A

Waste disposal method: N/A

SECTION IX - SPECIAL HANDLING INFORMATION

Ventilation: Ventilation, as described in the Industrial Ventilation Manual produced by the American Conference of Governmental Industrial Hygienists, shall be provided in areas where exposures are above the permissible exposure limits or threshold limit values specified by OSHA or other local, state, and federal regulations.

Respiratory Protection: A properly fitted, NIOSH-approved, dust-fume respirator should be worn during welding or burning whenever welding fumes exceed the threshold limit value (TLV) or other recommended limits, in accordance with the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Protective Clothing: Use appropriate protective clothing, such as welder's aprons and gloves, when welding or burning.

Eye Protection: Use face shield (8" minimum) and/or goggles when welding, burning or grinding.

SECTION X - SPECIAL PRECAUTIONS/ADDITIONAL INFORMATION

Precautions to be taken in handling and storage: None

DOT Information:

Hazardous material proper shipping name: N/A

Hazard Class: N/A

Identification Number: N/A

EPA Hazardous Waste Number: N/A

All data are subject to reasonable variation. This information is supplied in good faith by Keystone Steel & Wire and is applicable to the product as shipped. Your application of the product may change its characteristics. THE DATA PROVIDED HEREIN ARE BELIEVED CORRECT OR ARE OBTAINED FROM SOURCES BELIEVED TO BE GENERALLY RELIABLE. KEYSTONE STEEL AND WIRE SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF THIS PRODUCT, AND KEYSTONE STEEL & WIRE ASSUMES NO OBLIGATION OR LIABILITY FOR RELIANCE ON THE INFORMATION CONTAINED IN THIS DATA SHEET.